



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/591,637

09/05/2006

Wilhelm Weitzenberger

265-193

3288

23117

7590

05/29/2008

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

LE, DON P

ART UNIT

PAPER NUMBER

2819

MAIL DATE

DELIVERY MODE

05/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,637	WEITZENBERGER ET AL.	
	Examiner	Art Unit	
	Don P. Le	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-20 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/5/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 10, 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiromitsu (JP 621223801).

3. With respect to claim 1, figure 1 of Hiromitsu teaches a high frequency filter of coaxial construction, including at least one or more resonators, comprising:

an electrically conductive internal conductor (conductor formed with 3-5) configured as an internal conductive tube;

an electrically conductive external conductor (1);

an electrically conductive base (bottom of 1) which electrically interconnects the internal conductor and the external conductor;

a cover covering (top part of 1) at least the high frequency filter with respect to the base and having an inner side and outer side, the inner side pointing toward a free end of the internal conductive tube;

a dielectric layer having a relative dielectric constant greater than 2 is arranged between the outer side of the cover and the free end of the internal conductive tube (see abstract);

the radial extent of the dielectric layer (11) substantially covering the cross section of the internal conductive tube at the free end thereof;

wherein the dielectric layer is arranged on or fastened to the cover.

4. With respect to claim 5, figure 1 of Hiromitsu the dielectric layer (11) is held on the inner side of the cover by an adhesion means, in particular adhesive.

5. With respect to claim 10, Hiromitsu discloses the cross section of the internal conductive tube is substantially circular at the free end thereof.

6. With respect to claim 11, Hiromitsu discloses the radial extent of the dielectric layer is substantially circular.

7. With respect to claim 15, figure 1 of Hiromitsu the high frequency filter comprises a plurality of resonators (A, B), a single continuous, at least partially strip-like dielectric layer being provided for all of the resonators.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-9, 12-14, 17-19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiromitsu (JP 621223801).

9. With respect to claims 6, 7, 18 and 19, the prior art does not specify the parameters as claimed by applicant. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to designed the apparatus of Hiromitsu with specific dielectric constant as a matter of design to obtain desired performance, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

10. With respect to claim 8, it is notoriously well known in the art that dielectric layer can be designed with ceramic material as a matter of choice for performance or reliability.

11. With respect to claims 9, 12-14, the prior art does not specifically the parameters as claimed by applicant. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to designed the apparatus of Hiromitsu with specific dimension of the components as a matter of design to obtain desired performance, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

12. With respect to claims 17 and 20, it is notoriously well known in the art that filters such as Hiromitsu can be configured as band pass filter (see UP Patent 5,896,073, discloses resonators formed ban pass filter).

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiromitsu (JP 621223801) in view of Brown et al. (US 6,452,465). Hiromitsu does not teach duplex switch. Brown teaches a radiofrequency filter apparatus (duplex switch) having resonators for the purpose of filtering signal. It would have been obvious to one of ordinary skill of art at the time the invention was made to have used resonators of Hiromitsu as part of a duplex switch as taught by Brown for the purpose of filtering signal.

Allowable Subject Matter

14. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is an examiner's statement of reasons for allowance:

with respect to claim 2, the prior art does not teach the dielectric layer is inserted in a recess in the inner side of the cover...

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P. Le whose telephone number is 571-272-1806. The examiner can normally be reached on 7AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barnie Rexford can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Don P Le/
Primary Examiner, Art Unit 2819
5/23/2008